Proteins

Product Data Sheet

FT-1518

Cat. No.: HY-107363 CAS No.: 1313026-58-2 Molecular Formula: $C_{20}H_{26}N_{8}O$ Molecular Weight: 394.47 Target: mTOR

Pathway: PI3K/Akt/mTOR

Storage: Powder -20°C 3 years

2 years

In solvent -80°C 6 months

> -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 5 mg/mL (12.68 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.5350 mL	12.6752 mL	25.3505 mL
	5 mM	0.5070 mL	2.5350 mL	5.0701 mL
	10 mM	0.2535 mL	1.2675 mL	2.5350 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.5 mg/mL (1.27 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.5 mg/mL (1.27 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 0.5 mg/mL (1.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description FT-1518 is a new generation selective, potent and oral bioavailable mTORC1 and mTORC2 inhibitor, and exhibits antitumor activity.

mTORC1 mTORC2 IC₅₀ & Target

FT-1518 is a new generation selective, potent and oral bioavailable mTORC1 and mTORC2 inhibitor, and exhibits antitumor In Vitro activity. FT-1518 displays significant growth inhibitory activity against a large panel of hematologic and solid tumor cell lines

	with most activities falling into low nanomolar range. FT-1518 cuases potent inhibition of the mTOR pathway biomarkers (mTORC 1 & 2 biomarkers [pAkt(S473) and pS6(S240/244) or p70 S6K), no inhibition of PI3K biomarker [pAkt(T308)] in cells [MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	FT-1518 exhibits dose-dependent and higher tumor growth inhibition (TGI) in multiple solid tumor xenografts $^{[1]}$. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Alain C. Mita, et al. Abstract 137: FT-1518, a new generation selective and potent mTORC1 and mTORC2 inhibitor: an in vitro and in vivo profile. Cancer Res 2017;77(13 Suppl).

Caution: Product has not been fully validated for medical applications. For research use only.

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